COMMONWEALTH OF VIRGINIA
Department of Environmental Quality

INTRA-AGENCY MEMORANDUM

TO: File

FROM: Gary Bradley

SUBJECT: MeadWestvaco Corporation – Packaging Division (Registration # 20328)
PSD Significant Amendment

DATE: September 11, 2007 – Interim report

Introduction and Background

MeadWestvaco Packaging Resources Group operates a kraft paper mill in Covington Virginia. The facility operates under a PSD permit dated October 12, 1988, and a NSR permit for a phased construction project which began in 1995 and essentially completed in 2004. (The final phase was not instituted for budgetary reasons and the PSD netting is no longer valid without a new application.) The facility also has a federal operating permit and a pending state operating permit for BART compliance. As part of the 1988 PSD permit, the facility was required to institute ambient monitoring for sulfur dioxide to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS). This monitoring has continued through the end of the subsequent phased construction project with no violation of the NAAQS recorded. MeadWestvaco has requested to terminate the monitoring. Eighteen years of monitoring, including six years since the phased expansion installed a significant sulfur dioxide source, without a recorded NAAQS violation seems sufficient evidence that such a violation is unlikely in the future. Therefore it is reasonable to remove this monitoring requirement.

During preparation of the permit, it became apparent that certain conditions were inconsistent with the requirements for emission units that were modified in subsequent permit actions. Previous amendments to this permit had merely referenced those modifications noting that the most stringent of the requirements was appropriate. At that time no public comment was required for such an amendment. As public comment is needed for this action, both MeadWestvaco and VDEQ agree that conditions regarding emission units that have been modified subsequent to August 1988 should reflect limitations on those units as required by the respective permitting actions.

Emission Evaluation

Cessation of the SO_2 monitoring will have no impact on emissions from the mill. Revising permit limits and requirements for consistency with subsequent permits will not affect emissions but may lead to limits that create disparities with the original modeling. After nearly twenty years, consistency and reduced confusion seem more appropriate than maintaining old limits simply to match old modeling.

Regulatory Review and Considerations

The facility is being permitted subject to the provisions of Article 8 (9 VAC 5-80-1605 et seq.) of 9 VAC 5 Chapter 80 (Permits for Stationary Sources). As the modification affects monitoring at the facility, it is by definition a significant amendment to the 1988 PSD permit. No other physical modification is requested for this amendment so no other provisions are triggered by this action. While many NSPS and MACT requirements apply to the facility, only a few NSPS BB provisions were explicitly addressed in subsequent amendments to the permit. Other than incorporating those previous amendments to the permit,

this amendment does not address federal requirements enacted after the original permit date other than by reference in the equipment list.

Previous amendments to this permit were done before requirements to reopen the amendment process to public comment. Therefore previous amendments have not updated language or regulatory references. As this action is now required to undergo public comment, the amended permit will be updated to reflect current regulatory terminology and citations and revise control requirements to allow substitution of equivalent controls to be approved by VDEQ rather than the Air Board. Language requiring treatment of exhaust gases in the No. 1 Lime Kiln has been changed to treatment in an incinerator, in either lime kiln, or in a VDEQ approved control device, to resolve conflict with subsequent MACT control requirements. The corresponding requirements from the original permit are noted following the regulatory citations. Past permit conditions that were removed are described in an addendum to this report. Conditions revised for consistency with subsequent modifications are noted in the permit and in the addendum.

Compliance Determination

Compliance requirements in the original permit were minimal, as was typical at the time. As this is an amendment, it is not proper to introduce new monitoring and record keeping requirements such as would now be considered necessary to practical enforceability. It should be noted, however, that such requirements have generally been added to the facility's federal operating permit.

Public Participation

Present regulations require a significant amendment to a PSD permit to undergo the same public comment process as a PSD permit. Notice of a 30-day public comment period was posted in the Virginian Review on October 14, 2007.

[Additional details of public comment to be inserted in final report.]

Notification of Other Government Agencies

Notice to Federal Land Managers, the National Park Service and USEPA Region 3 was sent at least 30 days prior to the start of the public comment period, as required by regulation. Notice to the state of West Virginia, as an affected state, was made prior to the beginning of the public comment period.

[Recommend approval of permit]

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Addendum Concerning Conditions Deleted or Revised from the 1988 Permit

Conditions deleted from the original permit generally fall into four categories: boilerplate language no longer used, obsolete regulatory requirements (especially toxic requirements which no longer apply to MACT subject emission units), references to equipment not installed, and requirements that have been satisfactorily completed. The following notes discuss original conditions no longer contained in the permit.

I-1 Location as a condition – no longer included as such.
I-2 Application dates for submittals – now in introduction, not as a condition.
I-10 All D Line lignification emissions are now vented to the NCG system.
I-16 Limitation under state toxics – no longer applies to MACT subject units.
I-17 Limitation under state toxics – no longer applies to MACT subject units.
I-25 Condition referred to equipment not installed.
I-26 Replaced with more stringent subsequent requirement.
I-29 Toxics condition moved to state-only section (as C III-1 in 2003 amendment).
I-36 Condition referred to equipment not installed.
I-41 Ambient SO2 monitors – deleted by this permit action.
I-42 Ambient PM/PM-10 monitors for limited duration – time required is complete.
II-1 Quarterly progress reports – construction completed.
II-2 Construction milestone notifications – construction completed.
II-3 Schedule for performance testing – completed.
II-5 Installation of CEMS prior to performance tests – completed.
II-10 Zoning requirements met – now a greenfield source only requirement.
II-13 General condition for compliance with odor regulations – no longer in boilerplate.
II-14 Permit invalid if construction not begun or halted – construction completed.
II-16 Severability clause – no longer in general condition boilerplate.
II-17 Permit approval for Air Board only – pertinent portions now in permit introduction.

Many conditions were revised to make the requirements of this permit consistent with the requirements of subsequent permits, when emission units from this permit were further modified. The listing below summarizes which conditions were revised based on further modification of emission units.

Condition 8: Reflects subsequent revision of condensate collection system under NSPS and MACT requirements imposed after the original permit date. Old efficiency requirements for the No. 1 Condensate Stripper (C I-26) were deleted as these are less stringent than the subsequent requirements. Language was revised to reference present controls.

Condition 10: Reworded to reflect that the incinerator is now the primary combustion unit for digester VOC and TRS emissions rather than the lime kiln.

Condition 11: Added control requirement from NSPS/MACT requirements, specifically cited the waste gas incinerator. Control relates to deleted VOC emission limit in Condition 26 of original permit.

Condition 15: Revises throughput limits for digesters to reflect eight additional digesters added to system in modifications subsequent to the original PSD permit.

Condition 21: Revises annual emission limits for PM, PM10, SO2, and VOC to correspond to annual limits required by subsequent modification of the No. 2 Recovery Furnace.

Condition 24: Annual and average hourly limits reduced to correspond to limits required for the powerhouse during subsequent modifications.

A copy of the 1988 permit as amended through 2003 is attached with highlight on section that are

changed as referenced above.

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
Significant Amendment of PSD Permit Dated October 12, 1988

STATIONARY SOURCE PERMIT TO MODIFY AND OPERATE

This permit includes designated equipment subject to New Source Performance Standards (NSPS BB – Kraft Pulp Mills).

This permit includes designated equipment subject to National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTs S and MM for Pulp Mills).

This permit supersedes your permit dated October 12, 1988, as amended on September 29, 1995 and October 31, 2003.

Draft Version for Public Comment

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Meadwestvaco Corporation - Packaging Resources Group
104 East Riverside Street
Covington, VA 24426
Registration No.: 20328
County-Plant ID No.: 580-0003

is authorized to construct and operate a kraft pulp mill modification and expansion located at

104 East Riverside Street, Covington, VA

in accordance with the Conditions of this permit.

Approved on DATE.

_____

Steven A. Dietrich, P.E.
Regional Director, Department of Environmental Quality

Permit consists of 14 pages.
Permit Conditions 1 to 49.

INTRODUCTION

This permit approval is based on the permit application dated April 3, 2007, with supplemental material submitted electronically on July 6, 2007. Operating parameters not covered in that application shall be as represented in the application dated March 12, 1987, including amendment information dated April 28, 1988, July 1988, amendments related to the 1995 NSR permit, and the August 2003 amendment request. This amendment removes requirements for ambient sulfur dioxide monitoring, deletes references to equipment permitted but not installed, and removes testing and notification requirements that have been completed. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the Virginia Department of Environmental Quality (VDEQ) or the State Air Pollution Control Board (Board) for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the VDEQ will either be in writing or by personal contact.

The availability of information submitted to the VDEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PERMIT CONDITIONS:

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment subject to this permit at this facility consists of the following:

Equipment installed under the original PSD permit				
Reference No.	**Equipment Description**	**Rated Capacity**	**Federal Requirements**	**Original Permit Date**
REC 010	No. 2 Recovery Boiler	3000 tons BLS/day	NSPS BB, MACT MM	October 12, 1988
REC011	No. 2 Smelt Dissolving Tank	3000 tons BLS/day	NSPS BB, MACT MM	October 12, 1988
REC063	No. 4 Multiple Effect Evaporator	3000 tons BLS/day	NSPS BB, MACT S	October 12, 1988
UPM003	Batch Digesters 13-18 (of 26)[1]	786 ADTP/day	NSPS BB, MACT S	October 12, 1988
UPM030	D Line Brownstock Washer System	1200 ODT/day	NSPS BB, MACT S	October 12, 1988
UPM031	D Line High Density Storage	1200 ODT/day	NSPS BB, MACT S	October 12, 1988
UPM032	D Line Delignification Blow Tank	1200 ODT/day	NSPS BB, MACT S	October 12, 1988
UPM033	D Line Post Oxygen Wash System	1200 ODT/day	NSPS BB, MACT S	October 12, 1988
UPM034	D Line Screening System	1200 ODT/day	NSPS BB, MACT S	October 12, 1988
REC064	No. 1 Condensate Stripper	600 gpm	NSPS BB, MACT S	October 12, 1988
REC065	No. 1 Incinerator	2600 ADTP/day	NSPS BB, MACT S	October 12, 1988

[1] Digesters 19-26 were added subsequent to the 1988 PSD permit. This amendment revises the throughput and emission limits to reflect the modified 26 digester system.

Equipment modified in conjunction with the original PSD permit				
Reference No.	**Equipment Description**	**Rated Capacity**	**Federal Requirements**	**Original Permit Date**
UPM004	Turpentine System	3800 ADTP/day	NSPS BB, MACT S	(pre-CAA)
REC034	No. 16 Slaker/Caustisizer	413 tons CaO/day	NSPS BB, MACT S	(pre-CAA)
REC035	No. 20 Slaker/Caustisizer	653 tons CaO/day	NSPS BB, MACT S	(pre-CAA)
REC061	Waste Heat Evaporator System	3800 ADTP/day	NSPS BB, MACT S	(pre-CAA)
REC062	No. 1, 2, 3 Multiple Effect Evaporators	2627 tons BLS/day	NSPS BB, MACT S	(pre-CAA)
REC070	LVHC Closed Vent System	3800 ADTP/day	NSPS BB, MACT S	Compliance action
REC071	Condensate Collection System	3800 ADTP/day	NSPS BB, MACT S	Compliance action

Equipment limited under terms of the original PSD permit				
Reference No.	**Equipment Description**	**Rated Capacity**	**Federal Requirements**	**Original Permit Date**
PWR006	No. 6 Boiler	550 MMBTU/hr	(MACT DDDDD)*	(pre-CAA)
PWR007	No. 7 Boiler	440 MMBTU/hr	(MACT DDDDD)*	(pre-CAA)
PWR008	No. 8 Boiler	580 MMBTU/hr	(MACT DDDDD)*	(pre-CAA)
PWR009	No. 9 Boiler	807 MMBTU/hr	(MACT DDDDD)*	(pre-CAA)
PWR010	No. 10 Boiler	330 MMBTU/hr	(MACT DDDDD)*	(pre-CAA)
REC001	No. 1 Recovery Furnace	2627 tons BLS/day	NSPS BB, MACT MM	(pre-CAA)
REC002	No. 1 Smelt Dissolving Tank - Upriver	2627 tons BLS/day	NSPS BB, MACT MM	(pre-CAA)
REC003	No. 1 Smelt Dissolving Tank - Downriver	2627 tons BLS/day	NSPS BB, MACT MM	(pre-CAA)
REC045	No. 1 Lime Kiln	470 tons CaO/day	NSPS BB, MACT MM	(pre-CAA)
CLO001	No. 1 ClO2 Plant	30 tons/day		per 1995 mod

*MACT DDDDD was vacated in federal court during this permit action

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.
(9 VAC 80-1745) (Permit 10/12/88 Condition I-3)

2. **Emission Controls** – Emissions from the No. 2 Smelt Dissolving Tank shall be controlled by a venturi scrubber, or an equivalent control device approved by VDEQ. The scrubber shall be provided with adequate access for inspection and shall be in operation when the No. 2 Smelt Dissolving Tank is operating.
(9 VAC 5-80-1745 and 9 VAC 5-50-410) (Permit 10/12/88 Condition I-21)

3. **Monitoring Devices** - The venturi scrubber controlling the No. 2 Smelt Dissolving Tank shall be equipped with devices to continuously measure the differential pressure drop across scrubber and the scrubber liquid pressure. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection. Each monitoring device shall be properly calibrated and maintained, and shall be in operation at all times the No. 2 Smelt Dissolving Tank is operating, excepting brief periods of instrument maintenance.
(9 VAC 5-80-1745 and 9 VAC 5-50-410) (Permit 10/12/88 Condition I-40)

4. **Emission Controls** – Emissions from the No. 2 Recovery Furnace shall be controlled by a non-direct contact evaporator/low total reduced sulfur (TRS) emission design recovery furnace with state-of-the art combustion controls, plus an electrostatic precipitator (ESP) particulate collector (or VDEQ approved equivalent). The ESP collector shall be provided with adequate access for inspection.
   (9 VAC 5-50-260) (Permit 10/12/88 Condition I-20)

5. **Emission Controls** – All emissions from the No. 4 Multiple Effect Evaporator shall be controlled by combustion in a lime kiln or other VDEQ approved combustion unit.
   (9 VAC 5-50-260) (Permit 10/12/88 Condition I-22)

6. **Emission Controls** – All emissions from Batch Digesters 1-18 shall be controlled by combustion in a lime kiln or other VDEQ approved combustion unit.
   (9 VAC 5-50-260) (Permit 10/12/88 Condition I-23)

7. **Emission Controls** – All emissions from the D Line Brown Stock Washer System shall be controlled by combustion in a lime kiln or other VDEQ approved combustion unit, unless exempted from definition of brown stock washer for NSPS purposes, due to washer design having no emission.
   (9 VAC 5-50-260 and 9 VAC 5-50-410) (Permit 10/12/88 Condition I-24)

8. **Emission Controls** – Volatile Organic Compound (VOC) emissions from foul condensate and portions of other process waste water steams shall be controlled by combustion as stripper off gases (SOGs) from the Condensate Stripper System or by biological degradation in theWaste Treatment Plant.
   (9 VAC 5-50-260) (Permit 10/12/88 Condition I-26*)

9. **Emission Controls** – Sulfur dioxide emissions from the existing power house coal boilers No. 6-9 shall be controlled by Flue Gas Desulfurization (FGD) scrubbing. The scrubbers shall be provided with adequate access for inspection. All bleach room extraction filtrate waste and boiler house demineralize backwash water that would otherwise be sewered shall be used in the $S0_2$ FGD scrubbers to reduce $S0_2$ emissions below the allowable limits as much as practicable, until use of RTDM modeling using on-site meteorological data is approved by EPA or compliance with the $S0_2$ ambient standards is demonstrated by an EPA approved alternate model.
   (9 VAC 5-170-160) (Permit 10/12/88 Condition I-27)

10. **Emission Controls** – For TRS and VOC emission reduction, all existing pine relief gases from kraft digesting and all existing multiple effects evaporator gases previously vented to atmosphere shall be introduced to a waste gas incinerator, a lime kiln, or other VDEQ approved combustion unit for combustion.
    (9 VAC 5-170-160) (Permit 10/12/88 Condition I-28)

11. **Emission Controls** – Total reduced sulfur and volatile organic compound emissions from operation of the D Line oxygen delignification reactor and blow tank shall be controlled by combustion in a waste gas incinerator, lime kiln, or other VDEQ approved combustion unit.
    (9 VAC 5-50-260)

12. **Emission Controls** – Particulate matter and PM-10 emissions from the No. 16 Lime Slaker shall be controlled by a cold water spray condenser or VDEQ approved alternate control device. The control device shall be provided with adequate access for inspection and shall be in operation when the slaker is operating.
    (9 VAC 5-50-260) (Permit 10/12/88 Condition I-44)

13. **Testing/Monitoring Ports** - The kraft pulp mill shall be constructed/modified so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.
    (9 VAC 5-50-30 F) (Permit 10/12/88 Condition II-4)

14. **Stack Height -** Facility stack height extensions to 65 meters (213 feet) to be completed prior to start-up of the No. 2 Recovery Furnace. Stack increases shall include exhaust gases from the following affected sources:

Kraft Mill	Carbon Plant
No. 1 Lime Kiln	#57 Coal Screening/Granular Prep.
Lime Calciner	#80 Extruder Dryer
No. 20 Slaker	#82 Extruder Kilns
No. 8 and 12 Slaker	#55 WVIS Dryer
No. 16 Slaker	#70 No. 1 Kiln
New Bleach Room Scrubber	#71-74 Conveying/Screening/Grinding Mill
	#65, 66 and 69 No. 2 Activating Kiln
	#67, 68 and 69 No. 3 Activating Kiln

    This requirement to raise the stacks shall not apply to any process that is not going to be operated or to any emission points if their emissions are eliminated. This includes eliminating slaker emissions by use of a cold water spray condenser or equivalent on slaker Nos. 8 and/or 12 and/or 16.

    (9 VAC 5-80-1685) (Permit 10/12/88 Condition I-45)

OPERATING LIMITATIONS

15. **Production -** The production of pulp from Batch Digesters 1-26 shall not exceed 1, 387,000 ADTP per year, calculated monthly as the sum of the previous consecutive 12 months production.
    [Original permit set throughput limits for digesters 1-18, prior to addition of digesters 19-26. This revised condition substitutes throughput limits for the modified system because retention of the original limit implied an unnecessary requirement to keep separate records for digesters 1-18 and 19-26 which is unduly burdensome.]
    (9 VAC 5-80-1745) (Permit 10/12/88 Condition I-4*)

16. **Fuel Throughput -** The No. 2 Recovery Furnace shall consume no more than 5,250 gallons of No. 6 fuel oil per hour and 4,200,000 gallons per year. The amount of fuel oil may increase beyond these limits in proportion to the sulfur content decrease below 1 percent, as long as compliance is maintained with Condition 23 emission limits. The permittee shall maintain records, including certifications, of all oil shipments purchased indicating sulfur content per shipment. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.
(9 VAC 5-80-1745) (Permit 10/12/88 Condition I-5)

17. **Fuel Throughput -** The No. 2 Recovery Furnace shall consume no more than 750,000 standard cubic feet per hour nor 600 million standard cubic feet per year of natural gas, annual consumption calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-1745) (Permit 10/12/88 Condition I-5)

18. **Fuel Throughput -** The No. 1 Recovery Furnace shall consume no more than 4,500 gallons of No. 6 fuel oil per hour. The amount of fuel oil may increase beyond this limit in proportion to the sulfur content decrease below 1 percent, as long as compliance is maintained with Condition 29 emission limits. The permittee shall maintain records, including certifications, of all oil shipments purchased indicating sulfur content per shipment. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.
(9 VAC 5-80-1745) (Permit 10/12/88 Condition I-6)

19. **Fuel Throughput -** The No. 10 Boiler shall consume no more than 1,400 gallons per hour of No. 4 or No. 6 fuel oil. The throughput of oil through the No. 10 Boiler may increase beyond this limit in proportion to the sulfur decrease below one percent (1.0%) as long as compliance with the sulfur dioxide limit in Condition 28 is maintained. The permittee shall maintain records, including certifications, of all oil shipments purchased indicating sulfur content per shipment. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.
(9 VAC 5-80-1745) (Permit 10/12/88 Condition I-7)

20. **Fuel** - Residual oil burned in the No. 1 Recovery Furnace, No. 2 Recovery Furnace, or the No. 10 Boiler shall contain a maximum sulfur content per shipment of 1.0%.
(9 VAC 5-80-1745) (Permit 10/12/88 Conditions I-30, I-31, and I-32)

EMISSION LIMITATIONS

21. **Emission Limits -** Emissions from the operation of the No. 2 Recovery Furnace shall not exceed the limits specified below:

Particulate Matter (PM)	68.3 lbs/hr 0.027 gr/dscf @ 8% O_2	173.8 tons/yr[a]
PM-10	51.1 lbs/hr 0.027 gr/dscf @ 8% O_2	130.0 tons/yr[a]
Total Reduced Sulfur (TRS)*	7.8 lbs/hr 5 ppmvd@ 8% O_2	34.2 tons/yr
Sulfur Dioxide - BLS fuel	340.7 lbs/hr	350.0 tons/yr[a]
Sulfur Dioxide - residual oil[1]	832.7 lbs/hr	350.0 tons/yr[a]
Nitrogen Oxides – BLS fuel (as NO_2)	171.2 lbs/hr 2.44 lbs/ADTP	749.9 tons/yr
Nitrogen Oxides – natural gas[2] (as NO_2)	412.5 lbs/hr	796.5 tons/yr
Carbon Monoxide	546.5 lbs/hr 7.79 lbs/ADTP	2,393.6 tons/yr
Volatile Organic Compounds	38.4 lbs/hr	140.0 tons/yr[a]

* VDEQ will not consider periods of excess emissions as recorded on the TRS continuous emission monitor to be indicative of a violation provided that the total number of 12 hour averages of TRS concentrations above 5 ppm by volume, corrected to 8 volume percent oxygen, does not exceed 1 percent of the possible 12 hour periods per quarter (excluding periods of startup, shutdown, or malfunctions, and when the facility is not operating) and VDEQ determines that the affected facility, including air pollution control equipment, is maintained and operated in a manner which is consistent with good air pollution control practice for minimizing emissions during periods of excess emissions.

[1]including residual oil burned in combination with BLS
[2]including natural gas burned in combination with BLS
[a]emission limit reduced to correspond to limit from modification subsequent to 1988 permit

(9 VAC 5-50-260) (Permit 10/12/88 Conditions I-8* and I-39*)

22. **Emission Limits -** During periods of operation when the No. 1 Recovery Boiler is burning fuel oil, or a combination of fuel oil and black liquor, the No. 2 Recovery Boiler shall not exceed the limitations specified below:

Sulfur Dioxide	340.7 lbs/hr

(9 VAC 5-50-260 and 9 VAC 5-170-160) (Permit 10/12/88 Condition I-33)

23. **Emission Limits -** Emissions from the operation of the No. 2 Smelt Dissolving Tank shall not exceed the limits specified below:

Particulate Matter (PM)	15.6 lbs/hr 0.15 lbs/ton BLS	68.4 tons/yr
PM-10	14.0 lbs/hr	61.2 tons/yr
Sulfur Dioxide	14.0 lbs/hr	61.4 tons/yr
Total Reduced Sulfur (as H_2S)	1.75 lbs/hr 0.0168 lbs/ton BLS	7.7 tons/yr

(9 VAC 5-50-260 and 9 VAC 5-170-160) (Permit 10/12/88 Condition I-9)

24. **Emission Limits -** Emissions from the operation of the No. 6, No. 7, No.8, and No. 9 Boilers shall not exceed the limits specified below:

Sulfur Dioxide	3,300 lbs/hr 2085.0 lbs/hr as an annual average[a]	9,132.3 tons/yr[a]

[a]emission limit reduced to correspond to limit from modification subsequent to 1988 permit

(9 VAC 5-170-160) (Permit 10/12/88 Condition I-11*)

25. **Emission Limits -** Emissions from the operation of the No. 10 Boiler shall not exceed the limits specified below:

Sulfur Dioxide	220 lbs/hr

(9 VAC 5-170-160) (Permit 10/12/88 Condition I-11)

26. **Emission Limits -** Emissions from the operation of the No. 1 Recovery Furnace shall not exceed the limits specified below:

Particulate Matter (PM)[1]	150 lbs/hr 85.0 lbs/hr annual average	350.0 tons/yr
PM-10	103.8 lbs/hr 58.8 lbs/hr annual average	242.2 tons/yr
Sulfur Dioxide[2]	713.7 lbs/hr	

[1]at 94% utilization [2]firing oil

(9 VAC 5-170-160) (Permit 10/12/88 Condition C I-12)

27. **Emission Limits -** Emissions from the operation of the No. 1 Recovery Smelt Dissolving Tanks shall not exceed the limits specified below:

Particulate Matter (PM)[1]	14.1 lbs/hr	58.0 tons/yr
PM-10	12.6 lbs/hr	51.9 tons/yr

[1]at 94% utilization

(9 VAC 5-170-160) (Permit 10/12/88 Condition I-13)

28. **Emission Limits -** Emissions from the operation of the No. 1 Lime Kiln shall not exceed the limits specified below:

Particulate Matter (PM)[1]	27.6 lbs/hr	113.6 tons/yr
PM-10[2]	27.0 lbs/hr	111.7 tons/yr

[1]at 94.3% utilization [2]at 98.3% of PM

(9 VAC 5-170-160) (Permit 10/12/88 Condition I-14)

29. **Emission Limits -** Emissions from the operation of the No. 20 Lime Slaker shall not exceed the limits specified below:

Particulate Matter (PM)	6.0 lbs/hr	26.3 tons/yr

(9 VAC 5-50-260) (Permit 10/12/88 Condition I-15)

30. **Visible Emission Limit -** Visible emissions from the No. 2 Recovery Furnace shall not exceed thirty-five percent (35%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). VDEQ will not consider periods of excess emissions as recorded on the continuous opacity monitor to be indicative of a violation provided that the total number of 6 minute average opacities exceeding 35 percent does not exceed 6 percent of the possible 6 minute periods per quarter (excluding periods of startup, shutdown, or malfunctions, and when the facility is not operating) and VDEQ determines that the affected facility, including air pollution control equipment, is maintained and operated in a manner which is consistent with good air pollution control practice for minimizing emissions during periods of excess emissions.
(9 VAC 5-170-160 and 9 VAC 5-50-410) (Permit 10/12/88 Conditions I-18 and I-39)

31. **Visible Emission Limit -** Visible emissions from the No. 2 Smelt Dissolving Tank shall not exceed ten percent (10%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-260 and 9 VAC 5-50-410) (Permit 10/12/88 Condition I-19)

CONTINUING COMPLIANCE DETERMINATION

In the original 1988 PSD permit there were no explicit conditions for continuing compliance. Regulations at the time indicated that all required initial compliance testing would be subject to the same testing as continuing compliance at the discretion of VDEQ. Continuing compliance requirements corresponding to the original initial performance requirements are therefore added to this amendment of the permit.

32. **Stack Tests** - Upon request by the VDEQ, the permittee shall conduct performance tests for particulate matter, PM-10, total reduced sulfur, sulfur dioxide, nitrogen oxides, carbon monoxide, and/or volatile organic compounds from the No. 2 Recovery Furnace to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Air Compliance Manager, West Central Regional Office.
(9 VAC 5-50-30 G) (Permit 10/12/88 Condition I-34)

33. **Stack Tests** - Upon request by the VDEQ, the permittee shall conduct performance tests for particulate matter, PM-10, or total reduced sulfur from the No. 2 Smelt Dissolving Tank to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Air Compliance Manager, West Central Regional Office.
(9 VAC 5-50-30 G) (Permit 10/12/88 Condition I-35)

34. **Stack Tests** - Upon request by the VDEQ, the permittee shall conduct performance tests for methanol, hydrogen sulfide, and/or methyl mercaptan from the No. 2 Recovery Furnace and/or No. 2 Smelt Dissolving Tank to demonstrate conformity of emission parameters with the modeling required for the original permit. The details of the tests shall be arranged with the Air Compliance Manager, West Central Regional Office.
(9 VAC 5-50-30 G) (Permit 10/12/88 Condition I-37)

35. **Stack Tests** - Upon request by the VDEQ, the permittee shall conduct performance tests for particulate matter and PM-10 from the No.1 Recovery Furnace, the No. 1 Smelt Dissolving Tanks, and/or the No. 1 Lime Kiln to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Air Compliance Manager, West Central Regional Office.
(9 VAC 5-50-30 G) (Permit 10/12/88 Condition I-38)

CEMS/COMS

36. **CEMS -** Continuous Emission Monitoring Systems shall be installed to measure and record the emissions of total reduced sulfur from the No. 2 Recovery Furnace as ppmv corrected to 8% O_2. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR 60.13, Part BB and Appendix B or VDEQ approved procedures which are equivalent to these requirements. The monitoring systems shall also include an oxygen monitor.
(9 VAC 5-50-40) (Permit 10/12/88 Condition I-39)

37. **CEMS -** Continuous Emission Monitoring Systems shall be installed to measure and record the emissions of sulfur dioxide from the No. 2 Recovery Furnace as ppmv. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR 60.13, Part BB and Appendix B or VDEQ approved procedures which are equivalent to these requirements.
(9 VAC 5-50-40) (Permit 10/12/88 Condition I-39)

38. **COMS -** Continuous Opacity Monitoring Systems shall be installed to measure and record the opacity of emissions from the No. 2 Recovery Furnace. The COMS shall be installed, calibrated, maintained and operated in accordance with the requirements of 40 CFR 60.13 and Appendix B or VDEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13 and Appendix B. Data shall be reduced to six minute averages.
(9 VAC 5-50-40) (Permit 10/12/88 Condition I-39)

39. **CEMS -** Continuous Emission Monitoring Systems shall be installed to measure and record the emissions of sulfur dioxide from the combined stack for the No. 6, No. 7, No. 8, and No. 9 Boilers as pounds per hour. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR 60.13 and Appendix B or VDEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13 and Appendix B.
(9 VAC 5-50-40) (Permit 10/12/88 Condition I-43)

RECORDS

The original 1988 PSD permit contained only the following general condition related to record keeping. Additional record keeping requirements for the emissions units in this permit have been added to the federal operating permit for the facility to better conform to current practice.

40. **On Site Records -** The permittee shall retain records of all emission data and operating parameters required to be monitored by the terms of this permit. These records shall be maintained by the source for a period of at least two (2) years.
(9 VAC 5-80-1745 and 9 VAC 5-50-50) (Permit 10/12/88 Condition II-6)

NOTIFICATIONS

41. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Air Compliance Manager, West Central Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Air Compliance Manager, West Central Regional Office.
(9 VAC 5-20-180 C and 9 VAC 5-80-1785) (Permit 10/12/88 Condition II-11)

GENERAL CONDITIONS

42. **Permit Suspension/Revocation** - This permit may be suspended or revoked if the permittee:

    a. Knowingly makes material misstatements in the permit application or any amendments to it;

    b. Fails to comply with the conditions of this permit;

    c. Fails to comply with any emission standards applicable to a permitted emissions unit;

    d. Causes emissions from the stationary source which result in violations of , or interferes with the attainment and maintenance of, any ambient air quality standard; or

    e. Fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time an application for this permit is submitted.

    (9 VAC 5-80-1985) (Permit 10/12/88 Conditions II-9 and II-13)

43. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

    a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;

    b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;

    c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and

    d. To sample or test at reasonable times.

    For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
    (9 VAC 5-170-130)

44. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions

    The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the equipment listed in Condition 1 and the associated air pollution control equipment:

a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

b. Maintain an inventory of spare parts.

c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to VDEQ personnel upon request.
(9 VAC 5-50-20 E and 9 VAC 5-80-1745) (Permit 10/12/88 Conditions II-7 and II-8)

45. **Record of Malfunctions** – The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9VAC 5-20-180 J and 9 VAC 5-80-1785)

46. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the VDEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I and 9 VAC 5-80-1745) (Permit 10/12/88 Condition II-13)

47. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, West Central Regional Office of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-1975) (Permit 10/12/88 Condition II-15)

48. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-50-50)

STATE-ONLY ENFORCEABLE REQUREMENTS

49. **Emission Controls** – Chlorine emissions from the No. 1 Chlorine Dioxide plant shall be controlled by a caustic scrubber or VDEQ approve alternate control device. The control device shall be provided with adequate access for inspection and shall be in operation when the chlorine dioxide plant is operating. The control device shall achieve a minimum chlorine control efficiency of ninety-eight percent (98%).
(9 VAC 5-60-320) (Permit 10/12/88 Condition III-1)

Permit references following the regulatory citations refer to the corresponding conditions in the October 12, 1988 PSD permit. Conditions with a * refer to limits and requirements revised to correspond to new limits and requirements from permits for modifications issued subsequent to the original PSD permit.

PREVENTION OF SIGNIFICANT AIR QUALITY DETERIORATION PERMIT

STATIONARY SOURCE PERMIT TO MODIFY AND OPERATE

This permit includes designated equipment subject
to New Source Performance Standards (NSPS)

As amended in 1990, 1995 and 2003

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Westvaco Corporation - Bleached Board Division
Riverside Avenue
Covington, Virginia 24426
Registration No. 20328
County-Plant No. 005-0003

is authorized to construct and operate

a kraft pulp mill modernization and expansion

located at

the Covington pulp mill

in accordance with the Specific Conditions (emission limitations, monitoring and testing requirements) and the General Conditions set forth in Parts I and II herein.

Approved this twelfth day of October, 1988, and effective November 11, 1988.

Richard L. Cook
Executive Director

Permit Consists of 16 pages.
Part I - Specific Conditions 1 to 45.
Part II - General Conditions 1 to 17.
Part III - State Only Enforceable Condition 1.
Part IV - Document List, 9 items.
Part V - Source Testing Report Format.

PART I - SPECIFIC CONDITIONS - the regulatory reference and authority for each condition is listed in parenthesis () after each condition.

1. The Westvaco kraft pulp mill is located on Riverside Avenue in Covington, Virginia.

2. Construction and operation shall be conducted as proposed in the permit application dated March 12, 1987 and April 28, 1988 (as amended). The permit application and supporting documents (see Document List) are a part of this permit.
(Section 120-02-11 of State Regulations)

3. The equipment to be installed consists of:

   a. New No. 2 recovery furnace/boiler (reference 15):

      Rated capacity of this unit:

      - 1,259 x 10^6 Btu/hour,
      - 1,683.5 ADTP/day - 70.146 ADTP/hr, 614,500 ADTP/yr,
      - 2,500 tons (5.0 x 10^6 lbs) BLS/day - 104.17 tons BLS/hr, 912,500 tons BLS/yr,
      - 295,000 dscfm flue gas corrected to 8 percent oxygen,
      - equivalent to 228,000 dscfm flue gas corrected to 4 percent oxygen, and
      - equivalent to 479,000 acfm flue gas at 340°F.

   b. New smelt dissolving tank (reference 16):

      Rated capacity this unit:

      - 1,683.5 ADTP/day - 70.146 ADTP/hr, 614,500 ADTP/yr
      - 2,500 tons/day BLS (5 x 10^6 lbs) - 104.17 tons BLS/hr, 912,500 tons BLS/yr

   c. New (No. 4) multiple effects evaporators (reference 29A):

      Rated capacity of this unit (total of new evaporators):

      - 1,683.5 ADTP/day - 70.146 ADTP/hr, 614,500 ADTP/yr
      - 2,500 tons BLS/day (5 x 10^6 lbs) - 104.17 tons BLS/hr, 912,500 tons BLS/yr

   d. New digesters (No. 13-18) (reference 30A):

      Rated capacity of this unit (total of new digesters):

      - 786 ADTP/day.

e. New brown stock washer line D, 2 washers (reference no. 8A):

Rated capacity[1] of this unit:

-966 ADTP/day, 40.3 ADTP/hr, 352,600 ADTP/yr

[1]Except as updated by the August 30, 1995 permit, including subsequent amendments.

f. New oxygen delignification' tower (reference no. 19):

Rated capacity[1] of this unit:

-966 ADTP/day, 40.3 ADTP/hr, 352,600 ADTP/yr

[1]Except as updated by the August 30, 1995 permit, including subsequent amendments.

g.[Equipment deleted – project ceased for more than 180 days without installation of this equipment]

4. The production of pulp from the existing and proposed kraft pulp digesters No. 1 - 18 shall not exceed 2,600 ADTP per day, averaged over a year, and 949,000 ADTP per year. For semi-chemical (S.C.) digesters, see [1].

[1]Except as updated by the August 30, 1995 permit, including subsequent amendments.

(Section 120-02-11 of State Regulations)

5. Throughput of auxiliary/replacement fuel, for the new No. 2 recovery furnace boiler (reference no. 15), shall not exceed:

a. No. 6 fuel oil auxiliary/replacement fuel:

- 5,250 gals/hr (about 62.5 percent Btu capacity)

- 4,200,000 gals/yr (800 hrs x 5,250 gals/hr)

-refer to Specific Condition No. 30.

b. Natural gas auxiliary/replacement fuel:

-750,000 scf/hr (about 62.5 percent Btu capacity)

-600 x 10^6 scf/yr (800 hrs x 750,000 scf/hr)

(Section 120-02-11 of State Regulations)

6. Throughput for the existing No.1 recovery furnace/boiler (reference no. 14) shall not exceed 4,500 gallons per hour of No 6 fuel oil. Refer to Specific Condition No. 31. (Section 120-02-11 of State Regulations)

7. Throughput for the existing power house oil boiler No. 10 (reference no. 5) shall not exceed 1,400 gallons per hour of No. 4 or No. 6 fuel oil. Refer to Specific Condition No. 32. (Section 120-02-11 of State Regulations)

8. Emissions from the operation of the new No. 2 recovery furnace/boiler (reference no. 15) shall not exceed the limitations specified below:

Particulate Matter - TSP -	0.027 grain/DSCF corrected to 8% 0_2	
	68.3 lbs/hr	299.9 tons/yr[1]
Particulate Matter - PM10 -	51.1 lbs/hr	223.7 tons/yr[1]
TRS (as H_2S) - 5 ppmv dry* -	7.8 1bs/hr	34.2 tons/yr
	*corrected to 8% 0_2	
$S0_2$ at 100% BLS -	340.7 lbs/hr	1,492.1 tons/yr[1]
$S0_2$ at 100% No. 6 fuel oil	832.7 lbs/hr	
$S0_2$ at BLS + fuel oil -	832.7 lbs/hr	1,688.9 tons/yr[1]
NO_x at 100% BLS -	2.44 lbs/ADTP	
NO_x at 100% BLS -	171.2 lbs/hr	749.9 tons/yr
NO_x at 100% natural gas -	412.5 lbs/hr	
NO_x at BLS + natural gas	412.5 lbs/hr	796.5 tons/yr
CO -	7.79 lbs/ADTP	
CO -	546.5 lbs/hr	2,393.6 tons/yr
NMVOC (as carbon) -	138.5 lbs/hr[1]	606.6 tons/yr[1]

[1] **Except as updated by the August 30, 1995 permit, including subsequent amendments.**

(Section 120-05-0403 of State Regulations)

9. Emissions from the operation of the new smelt dissolving tank (reference nos. 16) shall not exceed the limitations specified below:

Particulate Matter - TSP	0.15 lbs/ton BLS (dry weight)	
	15.6 lbs/hr	68.4 tons/yr
Particulate Matter – PM-10	14.0 lbs/hr	61.2 tons/yr
$S0_2$	14.0 lbs/hr	61.4 tons/yr
TRS (as H_2S)	0.0168 lbs/ton BLS (dry weight)	
	1.75 lbs/hr	7.7 tons/yr

(Section 120-05-0403 of State Regulations)

10. Emissions from the operation of the new oxygen delignification tower (reference no. 19) shall not exceed the limitations specified below:

CO	16.7 lbs/hr[1]	73.2 tons/yr[1]
NMVOC	3.4 lbs/hr[1]	14.9 tons/yr[1]

[1] **Except as updated by the August 30, 1995 permit, including subsequent amendments.**

(Section 120-05-0403 of State Regulations)

11. Emissions from the operation of the existing power house boilers (reference nos. 1-5) shall not exceed the limitations specified below:

Coal units #6 – 9 combined

SO_2	3,300 lbs/hr max.	10,424.4 tons/yr[1]
	2,380 lbs/hr yearly average[1]	

Oil unit #10

SO_2	220 lbs/hr

[1]**Except as updated by the August 30, 1995 permit, including subsequent amendments.**

(Section 120-02-11 of State Regulations)

12. Emissions from the operation of the existing No. 1 recovery furnace/boiler (reference no. 14) shall not exceed the limitations specified below:

TSP	150 lbs/hr maximum	350.0 tons/yr (at 94% utilization)
	85.0 lbs/hr annual average	
PM10	103.8 lbs/hr	242.2 tons/yr
	58.8 lbs/hr annual average	
SO_2	713.7 lbs/hr (oil firing)	

(Section 120-02-11 of State Regulations)

13. Emissions from the operation of the existing smelt dissolving tanks (reference nos. 25 and 26) shall not exceed the limitations specified below:

TSP	14.1 lbs/hr	58.0 tons/yr (94% utilization)
PM10	12.6 lbs/hr	51.9 tons/yr

(Section 120-02-11 of State Regulations)

14. Emissions form the operation of the existing lime kiln (reference No. 6) shall not exceed the limitations specified below:

TSP	27.6 lbs/hr[1]	113.6 tons/yr (at 94.3% utilization)[1]
PM10	27.0 lbs/hr[1]	111.7 tons/yr (at 98.3% of TSP)[1]

[1]**Except as updated by the August 30, 1995, permit, including subsequent amendments.**

(Section 120-02-11 of State Regulations)

15. Emissions from the operation of the existing No. 20 lime slaker (reference No. 24A), permitted April 23, 1982, shall not exceed the limitations specified below:

TSP	6.0 lbs/hr	26.3 tons/yr

(Section 120-05-0403 of State Regulations)

16. [Condition Deleted – State toxic rules no longer apply to MACT subject emission units]

17. [Condition Deleted – State toxic rules no longer apply to chemicals not on the federal HAPs list]

18. Visible emissions from the new No. 2 recovery furnace/boiler (reference no. 15) shall not exceed 35 percent opacity.
(Section 120-02-11 of State Regulations)

19. Visible emissions from the new No. 2 smelt dissolving tank (reference no. 16) shall not exceed 10 percent opacity.
(Section 120-05-0403 of State Regulations)

20. Emissions from the new no. 2 recovery furnace/boiler (reference no. 15) shall be controlled by (or SAPCB approved equivalent) a non-direct contact evaporator/low TRS emission design recovery furnace with state-of-the art combustion controls, plus an ESP particulate collector. The ESP collector shall be provided with adequate access for inspection.
(Sections 120-08-01 F and 120-08-02 K of State Regulations)

21. Emissions from the new smelt dissolving tank (reference no. 16) shall be controlled by venturi scrubbing (or SAPCB approved equivalent). The tanks shall be provided with adequate access for inspection.
(Section 120-08-01 F of State Regulations)

22. All emissions from the new (No. 4) multiple effects evaporators (reference no. 29A) shall be controlled by combustion in the lime kiln.
(Section 120-08-01 F of State Regulations)

23. All emissions from the new and existing digesters (reference nos. 30A and 30-31) shall be controlled by combustion in the lime kiln.
(Sections 120-08-01 F and 120-02-11 of State Regulations)

24. All emissions from the new brown stock washer line D (reference no. 8A) shall be controlled by combustion in the lime kiln, unless exempted from definition of brown stock washer for NSPS purposes, due to washer design having no emission.
(Section 120-08-O1 F of State Regulations)

25. [Condition deleted – refers to equipment not installed]

26. The new foul condensate stripper[1] (reference no. 48) shall treat foul condensate streams containing at least 68.6 percent of the methanol before it enters the cooling tower and prior to entering the waste water treatment plant. The stripper shall be at least 72 percent efficient on methanol, for an overall efficiency of at least 49.4 percent. (Reference Westvaco's June 14, 1988 submittal of additional information.) The stripper shall meet any forthcoming state TRS regulations. Emissions shall be combusted in the lime kiln.

' **Except as updated by the August 30, 1995 permit, including subsequent amendments.**

(Section 120-08-01 F of State Regulations)

27. $S0_2$ emissions from the existing power house coal boilers N0. 6-9 (reference nos. 1-4) shall be controlled by FGD scrubbing. The scrubbers shall be provided with adequate access for inspection. All bleach room extraction filtrate waste and boiler house demineralize backwash water that would otherwise be sewered shall be used in the $S0_2$ FGD scrubbers to reduce $S0_2$ emissions below the allowable limits (Specific Condition No. 11) as much as practicable, until use of RTDM modeling using on-site meteorological data is approved by EPA or compliance with the $S0_2$ ambient standards is demonstrated by an EPA approved alternate model.
(Section 120-02-11 of State Regulations)

28. For TRS and VOC emission reduction, all existing pine relief gases from kraft digesting and all existing multiple effects evaporator gases vented to atmosphere shall be introduced to the lime kiln for combustion.

Also, a waste gas incinerator shall be installed and operated whenever the lime kiln is down to combust all TRS and VOC gases normally burned in the lime kiln.
(Section 120-02-11 of State Regulations)

29. [Condition moved to state only enforceable section]

30. The average sulfur content of the oil to be burned in the new No. 2 recovery furnace/boiler (reference no. 15) shall not exceed 1 percent by weight, per shipment. The amount of fuel oil may increase beyond the limits in Specific Condition No. 5 in proportion to the sulfur content decrease below 1 percent, as long as compliance with Specific Condition No. 8 is maintained. Westvaco Corporation - Bleached Board Division shall maintain records of all shipments purchased, indicating sulfur content per shipment. These records shall be available for inspection by the Board. They will be kept on file for a period of at least two (2) years.
(Section 120-05-0403 of State Regulations)

31. The average sulfur content of the oil to be burned in the existing No. 1 recovery furnace/boiler (reference no. 14) shall not exceed 1 percent by weight, per shipment. The amount of fuel oil may increase beyond the limits in Specific Condition No. 6 in proportion to the sulfur content decrease below 1 percent, as long as compliance with Specific Condition No. 12 is maintained.

Westvaco Corporation - Bleached Board Division shall maintain records of all shipments purchased, indicating sulfur content per shipment. These records shall be available for inspection by the Board. They will be kept on file for a period of at least two (2) years.
(Section 120-02-11 of State Regulations)

32. The average sulfur content of the oil to be burned in the existing power house boiler No. 10 (reference no. 5) shall not exceed 1 percent by weight, per shipment. The amount of fuel oil may increase beyondthe limits in Specific Condition No. 7 in proportion to the sulfur content decrease below 1 percent, as long as compliance with Specific Condition No. 11 is maintained. Westvaco Corporation - Bleached Board Division shall maintain records of all shipments purchased, indicating sulfur content per shipment. These records shall be available for inspection by the Board. They will be kept on file for a period of at least two (2) years.
(Section 120-02-11 of State Regulations)

33. During periods of operation when the No. 1 Recovery Boiler is burning fuel oil, or a combination of fuel oil and black liquor, the No. 2 Recovery Boiler shall not exceed the limitations specified below:

Sulfur Dioxide	340.7 lb/hr

(Section 120-05-0403 and 120-05-0303 of State Regulations)

34. Within the time limits specified in General Condition No. 3 of this permit, stack emission tests for the following shall be conducted on the new No. 2 Recovery Boiler:

a. Particulate Matter
b. TRS
c. SO_2
d. NOx
e. CO
f. NMVOC

Stack test for new or modified sources shall be conducted and reported and data reduced as set forth in Sections 120-05-03 and 120-06-03 of State Regulations and the test methods and procedures contained in each applicable section or subpart listed in Sections 120-05-0502 and 120-06-0102. At the same time particulate tests are conducted, opacity tests in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted. The details of the emission tests are to be arranged with the Director, West Central Regional Office.

(Section 120-08-01 H of State Regulations)

35. Within the time limits specified in General Condition No. 3 of this permit, stack emission tests for the following shall be conducted on the New Smelt Dissolving Tank:

a. Particulate Matter

b. TRS

Stack test for new or modified sources shall be conducted and reported and data reduced as set forth in Sections 120-05-03 and 120-06-03 of State Regulations and the test methods and procedures contained in each applicable section or subpart listed in Sections 120-05-0502 and 120-06-0102. At the same time particulate tests are conducted, opacity tests in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted. The details of the emission tests are to be arranged with the Director, West Central Regional Office.
(Section 120-08-01 H of State Regulations)

36. [Condition deleted – refers to equipment not installed]

37. Within the time limits specified in General Condition No. 3 of this permit, stack emission tests for methanol, hydrogen sulfide, and methyl mercaptan shall be conducted on the new No. 2 recovery boiler (reference 15) and new smelt dissolving tank (reference no. 16). Testing results exceeding those used in modeling shall necessitate remodeling to verify ambient compliance (4333 ug/m , 233 ug/m3, and 17 ug/m^3 respectively). A compliance report shall be submitted to the Board (Director, West Central Regional Office) in writing within 45 days of the test completion. Details of this compliance study to be arranged with the Director, Region II.
(Section 120-05-0306 of State Regulations)

38. Within 180 days from startup of the new No. 2 recovery furnace/boiler (reference no. 15) stack emission tests for particulate matter shall be conducted and results reported on the sources listed below in accordance with Section 120-04-03 of State Regulations. The details of the emission tests are to be arranged with the Director, West Central Regional Office.

    a. Existing No. 1 recovery furnace/boiler

    b. Existing smelt dissolving tanks

    c. Existing lime kiln

    (Section 120-02-11 of State Regulations)

39. The new No. 2 recovery furnace/boiler (reference no. 15) shall have the following continuous emission monitoring systems:

    a. Opacity

    b. TRS and oxygen

    c. S02

    The State Air Pollution Control Board will not consider periods of excess emissions to be indicative of a violation provided that:

    a. The total number of 6 minute average opacities exceeding 35 percent does not exceed 6 percent of the possible 6 minute periods per quarter (excluding periods of startup, shutdown, or malfunctions, and when the facility is not operating).

    b. The total number of 12 hour averages of TRS concentrations above 5 ppm by volume, corrected to 8 volume percent oxygen, does not exceed 1 percent of the possible 12 hour periods per quarter (excluding periods of startup, shutdown, or malfunctions, and when the facility is not operating).

c. The State Air Pollution Control Board determines that the affected facility, including air pollution control equipment, is maintained and operated in a manner which is consistent with good air pollution control practice for minimizing emissions during periods of excess emissions.

Data processing, record keeping and semi-annual reports to the VDEQ are required in accordance with NSPS subpart BB or Appendix B - performance specifications (of continuous emission monitors) of 40 CFR Part 60 - standards of performance for new stationary sources as appropriate. The details of these systems shall be arranged with the Director, West Central Regional Office.
(Section 120-05-04 of State Regulations)

40. The new smelt dissolving tank (reference no. 16) shall continuously monitor the pressure loss of the gas stream through the control device (scrubber) and the scrubbing liquid supply pressure to the control equipment. Data processing and record keeping is required in accordance with NSPS subpart BB.
(Section 120-05-04 of State Regulations)

41. Prior to start-up of the new recovery furnace/boiler (reference No. 15), Westvaco shall install and operate a continuous S02 ambient monitor, at a location agreed upon with the West Central Regional Office, until use of RTDM modeling using on-site meteorological data is approved by EPA, or compliance with the S02 ambient standards is demonstrated by an EPA approved alternate model. Records are to be maintained at the source, and copies supplied to the VDEQ West Central Regional Office quarterly. Details of ambient monitoring, including measuring methods and quality assurance, shall be arranged with the Director, West Central Regional Office.
(Section 120-02-11 of State Regulations)

42. Westvaco shall install and operate a TSP and a PM10 ambient monitor, at a location agreed upon with the West Central Regional Office, beginning within three months of permit approval and ending one (1) year after completion of this expansion project. Records are to be maintained at the source and copies supplied to the VDEQ West Central Regional Office quarterly. Details of ambient monitoring, including measuring methods and quality assurance, shall be arranged with the Director, West Central Regional Office.
(Section 120-02-11 of State Regulations)

43. A continuous emission monitor shall be installed to measure and record the emission rate of S02 emitted from the existing powerhouse coal boilers (units #6-9, reference nos. 1-4), in accordance with Appendix B - performance specifications (of continuous emission monitors) of 40 CFR Part 60.
(Section 120-02-11 of State Regulations)

44. The existing No. 16 lime slaker (reference no. 24) shall not be operated except in an emergency when the existing No. 20 (reference 24A) slaker is not operable. Reactivation of this unit requires permit approval.

This condition shall not apply once the Dorr Oliver cold water spray condenser or equivalent system is installed on the No. 16 slaker which effectively eliminates the emission point and its emissions. Westvaco shall notify the Director, Region II of such installation.
(Section 120-02-11 of State Regulations)

45. Facility stack height extensions to 65 meters (213 feet) to be completed prior to start-up of the new recovery furnace/boiler (reference no. 15). Details to be submitted to the Director, Region II.

Stack increases shall include exhaust gases from the following affected sources:

Kraft Mill	Carbon Plant
Lime Kiln	#57 Coal Screening/Granular Prep.
Lime Calciner	#80 Extruder Dryer
No. 20 Slaker	#82 Extruder Kilns
No. 8 and 12 Slaker	#55 WVIS Dryer
No. 16 Slaker	#70 No. 1 Kiln
New Bleach Room Scrubber	#71-74 Conveying/Screening/Grinding Mill
	#65, 66 and 69 No. 2 Activating Kiln
	#67, 68 and 69 No. 3 Activating Kiln

This requirement to raise the stacks shall not apply to any process that is not going to be operated or to any emission points if their emissions are eliminated. This includes eliminating slaker emissions by use of Dorr Oliver cold water spray condenser or equivalent on slaker Nos. 8 and/or 12 and/or 16.
(Section 120-02-11 of State Regulations)

PART II - GENERAL CONDITIONS

1. Quarterly reports on the progress of construction shall be submitted to the Director, Region II, beginning January 1, 1989.
(Section 120-02-11 of State Regulations)

2. The permittee shall furnish written notification to the Board (Director, Region II) of:

   a. The actual date on which construction commenced within 30 days after such date.

   b. The anticipated start-up date postmarked not more than 60 days nor less than 30 days prior to such date.

c. The actual start-up date within 15 days after such date.

d. The anticipated date of each of the required performance tests postmarked at least 30 days prior to such date.

(Section 120-05-05 of State Regulations)

3. Each emission point for which a stack test requirement is established in Part I of this permit shall be tested to determine compliance with the emission limits contained herein within 60 days after achieving the maximum production rate but in no event later than 180 days after start-up of the permitted facility. Compliance test results shall be reported to the Board (Director, Region II) in writing within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(Sections 120-05-03 and 120-06-03 of State Regulations)

4. The permitted facility shall be designed and constructed so as to allow emissions testing using the methods prescribed upon reasonable notice at any time.
(Sections 120-05-03 and 120-06-03 of State Regulations)

5. All continuous monitoring systems and monitoring devices, as may be applicable for your source type, shall be installed and operational prior to conducting performance tests under Sections 120-05-03 and 120-06-03. Performance evaluations of the continuous monitoring system must take place during the performance tests under Sections 120-05-03 and 120-06-03 or within 30 days thereafter. The Board must be furnished with two copies of the report of the performance evaluations within 60 days of said evaluation.
(Sections 120-05-04 and 120-06-04 of State Regulations)

6. The permittee shall retain records of all emission data and operating parameters required to be monitored by the terms of this permit. These records shall be maintained by the source for a period of at least two (2) years.
(Sections 120-05-05 and 120-06-05 of State Regulations)

7. All air pollution control equipment operators shall be trained in the proper operation of all such equipment. Westvaco Corporation - Bleached Board Division shall maintain records of the required training. Records of training shall consist of a statement of time, place and nature of training provided.
(Section 120-02-11 of State Regulations)

8. The company shall develop, maintain, and have available to all operators good written operating procedures for all air pollution control equipment. A maintenance schedule for all such equipment shall be established and made available to the State Air Pollution Control Board for review. Records of service and maintenance shall be maintained on file by the source for a period of two (2) years.
(Section 120-02-11 of State Regulations)

9. The Board reserves the right to modify and, if appropriate, to reissue or to rescind this permit if prior to operation there is a substantive change in any of the data upon which the decision to approve this permit was based.
(Section 120-02-11 of State Regulations)

10. All local zoning and building requirements must be met before commencing construction.
(Section 120-02-11 of State Regulations)

11. If, for any reason, the permittee does not comply or will not be able to comply with the emission limitations or other conditions specified in this permit, the permittee shall provide in writing to the Board (Director, Region II) the following information as soon as possible but no later than five (5) days after such conditions become known to the permittee:

a. description of noncompliance;

b. cause of noncompliance;

c. anticipated time the noncompliance is expected to continue or, if corrected, the actual duration of noncompliance;

d. steps taken by the permittee to minimize or eliminate the non-compliance; and

e. steps taken by the permittee to prevent recurrence of the non-compliance.

Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this permit nor does it in any way restrict the SAPCB's authority to enforce the permit conditions pursuant to Section 113 of the Clean Air Act.
(Section 120-02-11 of State Regulations)

12. The permitted facility is to be constructed and operated as represented in the permit application referenced in Condition 2 of Part I. No changes in the permit application specifications or any existing facilities shall be made which alter the emissions into the ambient air or alter the impact of the facility on air quality without the prior written approval of the Board.
(Section 120-02-11 of State Regulations)

13. The facility shall operate in compliance with Rules 4-3 and 5-3, Non-Criteria Pollutants. No changes in the facility that alter emissions of any non-criteria pollutant or cause the emission of additional non-criteria pollutants shall be made without the prior written approval of the Board.
(Sections 120-04-0305 and 120-05-0305 of State Regulations)

14. This approval shall become invalid if construction of the proposed plant is not commenced within 18 months or if it is discontinued for a period of 18 months.
(Sections 120-08-01 I and 120-08-02 of State Regulations)

15. In the event of any change in control of ownership of the permitted source, the permittee shall notify the succeeding owner of the existence of this permit by letter and send a copy of that letter to Director, Region II.
(Section 120-02-11 of State Regulations)

16. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of that provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
(Section 120-02-11 of State Regulations)

17. This permit approval is only applicable to the permit requirements of the State Air Pollution Control Board and does not alter permit requirements by any other local, state, or federal government agency. Westvaco Corporation - Bleached Board Division is cautioned that approval of this permit should not be construed to mean its operation is automatically in compliance with all aspects of the Regulations for the Control and Abatement of Air Pollution. State Air Board personnel will be constantly evaluating all sources for compliance with Part V, Section 120-05-0103 - Standard for Visible Emissions, Section 120-05-0104 - Standard for Fugitive Dust/Emissions, and Section 120-05-0203 - Standard for Odorous Emissions. Compliance with all air pollution regulations must be a continuing, full time effort.
(Section 120-02-11 of State Regulations)

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate your response to requests for information to include, as appropriate: fuel consumption by type, heat value, sulfur and ash content; process and production data; refuse disposal by incineration including auxiliary fuels burned; storage, handling and use of liquid organic compounds; and, changes in stack data, control equipment, and operating schedules. Such requests for information from the Regional Office will either be in writing or by personal contact of field enforcement personnel. Emissions data provided to the Board by a source must be made available to the public upon request; process data for individual facilities and plants will be made available to the public upon request unless the source claims, in writing, the information is proprietary and that it should be held as confidential.
(Section 120-02-31 of State Regulations)

PART III – State Only Enforceable Conditions

1. The No. 1 Chlorine Dioxide Plant shall control chlorine emissions with a caustic scrubber. The scrubber shall achieve a minimum chlorine control efficiency of ninety-eight percent (98%). (Section 120-08-01 F of State Regulations)

PART IV - DOCUMENT LIST

1. Westvaco Corporation - Bleached Board Division permit application, dated March 12, 1987 and signed by Jack A. Hammond, Vice President, Mill Manager, and amended information, dated April 1988 and July 1988.

2. State Air Pollution Control Board, Region II engineering analysis, dated June 15, 1988 and revised July 13, 1988.

3. State Air Pollution Control Board letter to Covington City Manager, dated May 31, 1988.

4. Permit information to National Park Service, dated November 10, 1987, December 24, 1987, May 31, 1988, June 3, 1988, June 16, 1988, July 13, 1988, and October 12, 1988.

5. Permit information to Jefferson National Forest, dated December 24, 1987, May 31, 1988, June 3, 1988, June 16, 1988, July 13, 1988 and October 12, 1988.

6. Permit information to EPA, Region III Air Enforcement Branch, dated December 24, 1987, March 11, 1988, March 21, 1988, March 28, 1988, May 31, 1988, June 3, 1988, June 16, 1988, July 13, 1988, and September 21, 1988.

7. Federal NSPS Regulation Part 60 Subpart BB, Standards of Performance for Kraft Pulp Mills.

8. For the September 1995 amendment to this permit: The August 30, 1995 permit for the Step IV pulp mill expansion. Permit application submittals were the same as for the August 30, 1995 permit, i.e., March 29, 1995, May 22, 1995, June 6, 1995, June 15, 1995, July 11, 1995, August 9, 1995, and August 23, 1995.

9. For the October 2003 amendment to this permit: The Meadwestvaco request for amendment to existing NSR permits dated September 2003.